

Comparisons of Job Characteristics

Focus Occupation: Food Scientists and Technologists (19-1012)

Associated Occupation: Biological Scientists, All Other (19-1029)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 57

Focus Occupation: Food Scientists and Technologists (19-1012)
Associated Occupation: Biological Scientists, All Other (19-1029)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Biology	3.7	24.4	16.8	<<	Extensive education and/or training may be required
English Language	11.2	18.2	14.3	<<	Extensive education and/or training may be required
Chemistry	4.8	16.4	19.8	>>	Current knowledge level is likely more than sufficient
Mathematics	9.2	14.7	14.5	0	Current knowledge level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 85

Focus Occupation: Food Scientists and Technologists (19-1012)
Associated Occupation: Biological Scientists, All Other (19-1029)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Reading Comprehension	10.7	18.5	13.8	<<	Extensive development of skills in this area may be required
Writing	9.2	16.2	13.2	<	A higher skill level may be required
Science	4.5	16.1	9.0	<<	Extensive development of skills in this area may be required
Critical Thinking	10.8	15.7	13.3	<	A higher skill level may be required
Active Learning	8.7	15.0	12.5	<	A higher skill level may be required
Judgment and Decision Making	9.4	13.2	11.6	<	A higher skill level may be required
Complex Problem Solving	9.1	13.1	12.3	0	Current skill level may be sufficient

Mathematics	6.2	12.6	9.0	<<	Extensive development of skills in this area may be required
Learning Strategies	7.2	12.2	8.6	<<	Extensive development of skills in this area may be required
Systems Analysis	6.5	11.0	10.5	0	Current skill level may be sufficient
Systems Evaluation	6.4	10.5	9.7	0	Current skill level may be sufficient
Management of Material Resources	3.7	6.6	3.6	<<	Extensive development of skills in this area may be required
Programming	2.2	5.1	2.3	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 97

Focus Occupation: Food Scientists and Technologists (19-1012)
Associated Occupation: Biological Scientists, All Other (19-1029)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Written Comprehension	11.0	18.5	14.5	<<	Extensive improvement in abilities may be required
Oral Comprehension	12.5	17.9	14.5	<<	Extensive improvement in abilities may be required
Written Expression	9.8	17.9	13.3	<<	Extensive improvement in abilities may be required
Oral Expression	12.4	17.1	13.8	<<	Extensive improvement in abilities may be required
Inductive Reasoning	10.2	16.1	14.5	<	Some improvement in abilities may be required
Deductive Reasoning	10.6	15.6	13.5	<	Some improvement in abilities may be required
Problem Sensitivity	11.1	14.4	13.9	0	Current ability level may be sufficient
Near Vision	11.1	13.9	12.2	<	Some improvement in abilities may be required
Mathematical Reasoning	6.3	13.3	10.8	<	Some improvement in abilities may be required
Category Flexibility	9.0	13.2	13.5	0	Current ability level may be sufficient
Number Facility	6.3	11.8	11.0	0	Current ability level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

There are no common work activities.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 72

Focus Occupation: Food Scientists and Technologists (19-1012)
Associated Occupation: Biological Scientists, All Other (19-1029)

Tools and Technologies	Exclusivity
Autoclave and sterilizer equipment and accessories	12
Business function specific software	1
Chemical evaluation instruments and supplies	10
Chromatographic measuring instruments and accessories	16
Clinical and diagnostic analyzers and accessories and supplies	18
Computers	1
Content authoring and editing software	1
Data management and query software	1
Electrochemical measuring instruments and accessories	9
Indicating and recording instruments	2
Industry specific software	1
Laboratory baths	24
Laboratory centrifuges and accessories	13
Laboratory electrophoresis and blotting system and supplies	26
Laboratory heating and drying equipment	13
Laboratory incubating equipment	20
Laboratory ovens and accessories	15
Laboratory water purification equipment and supplies	29
Pipettes and liquid handling equipment and supplies	16
Spectroscopic equipment	10
Viewing and observing instruments and accessories	4
Weight measuring instruments	7

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.